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Submitted herewith for filing under 35 U.S.C. 111 and 37 C.F.R. 1.53 is the patent application of:

JOHNSON et al.

For: MECHANIZED TAX WORKSHEET

Enclosed are:

- ☐ Certificate of Mailing with Express Mail Mailing Label No.
- ☒ SIX (6) sheets of drawings.
- ☐ A certified copy of a application.
- ☒ Declaration ☐ Signed. ☒ Unsigned.
- ☐ Power of Attorney
- ☐ Information Disclosure Statement
- ☐ Preliminary Amendment
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For	#Filed	#Allowed	#Extra	Rate	Fee
Total Claims	34	- 20 =	14	x \$18.00	\$252.00
Indep. Claims	5	- 3 =	2	x \$78.00	\$156.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					\$0.00
BASIC FEE					\$690.00
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2025 RELEASE UNDER E.O. 14176

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MECHANIZED TAX WORKSHEET

BACKGROUND

5 Field of the Invention

The present invention is directed to data verification. More particularly, the present invention is directed to verifying the accuracy of charges on customer bills before the customer bills are sent to the respective customers.

10 Background of the Invention

15 Large utility companies such a regional telephone companies must generate and mail thousands, and typically millions, of customer bills each month. Typically, bills are generated in batches on a mainframe computer that stores customer and account information. For each batch or billing cycle, the mainframe computer collects the relevant charges for each customer, calculates appropriate taxes, tariffs and/or other charges, and organizes these several elements into a format that can be printed and understood by a customer.

20 Telecommunications service billing, and particularly telephone service billing, is especially complicated. Using a residential telephone customer as an example, one of the only charges on the bill that remains relatively constant from month to month, or even from customer to customer, is a monthly service charge that all residential customers must pay. However, there are a host of additional charges that are included in a typical telephone bill including premium services such as call waiting and call forwarding services, emergency 911 charges, late

payment charges, long distance (toll) charges and bulk item charges such as directory assistance. Furthermore, telephone companies typically serve customers in several jurisdictions including cities, counties, and states, each having its own unique taxing, tariff and/or surcharge paradigm that may be applied in unique ways to the several services charged to a customer's account.

In view of the complexity of the several taxes, tariffs and surcharges that may be applicable to a customer's account, it is not uncommon for errors to appear on customer bills. Accordingly, large enterprises, such as telephone companies, often establish a department that is charged with reviewing the accuracy of customer bills before the bills are sent (e.g., mailed) to customers. This review process amounts to a "sanity check" on the output of the mainframe computer that is running complex computer algorithms that calculate and, presumably, properly apply the appropriate taxing and charging schemes to the individual customer accounts. Thus, bill verification typically involves obtaining a sample of all or a batch of bills, and preferably at least a sample from each major jurisdiction, e.g., a state, reviewing those bills, and verifying them for elements such as taxes and fractionalization of other charges and credits (OC&Cs).

The bill verification function is particularly important where the mainframe computing function is performed by an outside contractor or consultant, i.e., the function is outsourced. In such a situation there is significantly less oversight of the overall billing process, thereby leading, potentially, to increased billing errors and

thus increased customer dissatisfaction and complaints. There may also be legal ramifications if customer bills are grossly erroneous.

The conventional method of conducting bill verification is to manually review each sample or "hold" bill, manually identify each of the charges on the bill that is subject to taxation, for example, manually calculate the taxes for each charge by using tax tables, manually calculate a sum for the charges and compare that sum to the data on the "hold" bill. These manual procedures, however, are extremely slow, tedious and prone to errors.

SUMMARY OF THE INVENTION

To address the urgency of bill verification and to avoid the drawbacks of conventional manual bill verification, the present invention provides a mechanized tax worksheet that automatically obtains, from mainframe computer data, the data that is pertinent to bill verification, e.g., toll charges, bulk charges and other charges and credit information, automatically places those elements in a worksheet that is displayed on a computer, automatically determines which charges are subject to taxing, applies the appropriate tax rate and automatically tabulates total taxes and other charges so that error free and efficient bill verification is implemented.

The present invention eliminates, almost entirely, the need for bill verifiers to manually identify and manipulate data. Accordingly, the mechanized tax worksheet of the present invention also eliminates data entry and calculation errors that can occur when bill verification is performed manually.

5 In a preferred embodiment of the present invention the mechanized tax worksheet operates independently from a mainframe computer that generates customer bills. Specifically, the system preferably includes an intermediate server for downloading, from the mainframe computer, to a local server billing data associated with a customer account. A database is provided and is populated
10 directly with a portion of the billing data. Other portions of the billing data undergo pre-calculation functions to simplify viewing of the data on a displayed worksheet. Taxes applicable to various charges in the billing data are thereafter automatically calculated and the results of the tax calculations are saved or stored electronically and may be displayed as desired.

15 After calculating the taxes independent of the mainframe computer, the calculated taxes are compared to the taxes appearing on the corresponding bill generated by the mainframe computer. In one embodiment, this comparison step is accomplished using a paper copy of a mainframe "hold" bill and comparing the tax appearing thereon to the taxes calculated by the present invention. Alternatively,
20 the "hold" bill is scanned and its image is made available to the same computer that is displaying the independently calculated taxes. In still another preferred embodiment of the invention, the scanned image undergoes optical character

recognition and the data resulting therefrom is then electronically compared to the independently calculated taxes.

It is therefore an object of the present invention to provide an automated or mechanized system and method for verifying billing accuracy.

5 It is also an object of the present invention to provide a system and method for comparing the billing information output from a mainframe computer and billing information generated independent of the mainframe computer.

It is also an object of the present invention to populate a database with data pertinent to bill verification and display some or all of the data on a computer.

10 It is also an object of the present invention to permit a user to modify data pertinent to bill verification.

It is still further an object of the present invention to electronically compare a "hold bill" and an independently calculated bill.

15 It is still further an object of the present invention to provide a system and method that simultaneously displays "hold bill" data and independently calculated bill data.

It is also an object of the present invention to provide a system and method for identifying errors in customer bills by independently calculating bills and storing the independently calculated bills for future use.

These and other objects of the present invention will become apparent upon a reading of the detailed description of the invention in conjunction with the accompanying drawings.

5 BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a schematic diagram of a preferred embodiment of the present invention.

Figure 2 shows a tax worksheet input screen with exemplary data in accordance with a preferred embodiment of the present invention.

Figure 3 is a services report in accordance with a preferred embodiment of the present invention.

Figure 4 is a tax calculations results screen in accordance with a preferred embodiment of the present invention.

Figures 5A-5B together illustrate a summary report in accordance with a preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

Figure 1 illustrates an implementation of a preferred embodiment of the present invention wherein a mainframe computer 102 functions as a central billing computer for a large enterprise. In the following description, a telephone company will be used as the exemplary "large enterprise". However, those skilled in the art will appreciate that the present invention is applicable to any enterprise where a

relatively large number of bills must be periodically generated and a bill verification process might be desirable.

An important aspect of the present invention is the independent verification of bills that are generated by mainframe computer 102. To perform useful bill verification many of the functions of the present invention are, therefore, implemented independently of mainframe computer 102, and most preferably on a local server 130 that is in communication with several terminals or personal computers (PCs) 125 via an electronic data network 120. Data networks, such as local area networks, wide area networks and intranets and the like, which are well known in the art, are suitable for implementing data network 120. Data network 120 may also comprise the Internet, especially if bill verifiers (system users) are geographically dispersed.

In a preferred embodiment of the present invention, mainframe computer 102 periodically downloads billing information to an intermediate server 105. This billing information is stored in Mechanized Tax Worksheet (MTW) Database 108, which may be separate from local server 130 or, preferably, is coextensive with local server 130 as a single data processing machine 135 as shown. In either case, local server 130 preferably is capable of reading from, writing to and updating the data stored in MTW Database 108. Preferably, intermediate server 105 is periodically purged of the billing information received from mainframe computer 102 so that intermediate server 105 can be utilized for other functions, which may or may not be related to billing functions. That is, in the context of the present invention,

intermediate server 105 may be used only for purposes of facilitating data transfer and may even be eliminated altogether if local server 130 can effectively download data directly from mainframe computer 102.

Billing for telephone usage can be divided, generally speaking, into two categories: (i) usage or toll type charges and (ii) services and other charges, other than toll/usage charges. Usage and toll type charges include, for example, long distance charges and directory assistance. On the other hand, services other than toll/usage include, for example, standard line charges, local number portability, inside wire service and trouble determination plans, call waiting and emergency 911 charges. Typically, the usage/toll type charges tend to vary during a single billing cycle, while the second category of charges tends to be more stable.

Referring again to Figure 1, the first type of data, toll/usage data, is hereinafter referred to as prebill data 140. The second, or relatively more constant billing data, is hereinafter referred to as demand print data 145. Prebill data preferably is downloaded to local server 130 and stored on MTW Database 108 on, e.g., a daily basis so that this more volatile type of billing information is as up to date as possible. More specifically, prebill data is preferably downloaded on the day that bill verification takes place. Demand print data may be downloaded less often, but preferably at a frequency sufficient to capture changes to the vast majority of accounts. Thus, demand print data 145 may be downloaded a few days before bill verification with the assumption that this data has remained constant during this time.

In addition to prebill data 140 and demand print data 145, MTW Database is also preferably loaded with tax rate information from Tax TAR (taxing area responsibility) database 110. This information preferably includes local tax rates and E911 surcharge information by TAR Code. Preferably, but not necessarily, the tax rate information that is loaded into MTW Database 108 is the same tax rate information that is supplied to and used by mainframe computer 102. This helps maintain consistency between the mainframe computer billing calculation and the bill verification calculation functions described below. Tax TAR database 110 and/or a separate revenue directory (not shown) includes information regarding which charges among the several charges contained in the prebill and demand print data files are taxable as well as the appropriate rate at which the respective charges are to be taxed.

Thus, preferably, two files are created that contain information about customer accounts that are to be sampled. A prebill file and a demand print file are downloaded to local server 130 (though not necessarily on the same day). At this point, many of the data fields in the respective files are loaded directly into MTW Database 108. For example, the account telephone number and whether the account is a residence or a business are transferred from the appropriate file to a record in MTW Database 108 without modification. On the other hand, some of the downloaded data is first processed before being stored in the appropriate records in MTW Database 108. Specifically, individual late payment charges, emergency 911 surcharges, directory advertising charges, installment billing charges and toll

charges, preferably, are respectively added together so that a single numerical value only may represent, on individual lines of the tax worksheet (described below), all of these respective charges. Once the pre-calculation is complete, these data are also then loaded and stored in the appropriate MTW Database 108 records, e.g., by account number.

Figure 2 illustrates a tax worksheet input screen in accordance with a preferred embodiment of the present invention. The several "cells" in the worksheet are preferably automatically filled in once an account number (e.g., a customer telephone number) is entered. The account number then accesses a record of billing data that has been stored in MTW Database 108 and "pulls" that data for display on the worksheet. Building such "records" in a database is well-known to those skilled in the art. The following description of the features of the worksheet of the present invention also provides a more detailed description of the data that is downloaded from mainframe computer 102.

In accordance with a preferred embodiment, the present invention is implemented in Visual Basic. However, any programming language suitable for providing a user interface to a relational database, i.e., MTW Database 108 may also be used.

Referring now to Figure 2, the tax worksheet of the present invention includes a menu at the top portion of the worksheet. Menu item "MTW" has a drop down option (not shown) for exiting the worksheet. The next menu item

entitled "Operations" includes menu options to "Apply Full Rate" for over-riding a discounted rate, "Calculate Taxes" for initiating the application of the taxing rates to the various charges and summing the taxes, "Review Tax Results" which changes the displayed worksheet to a tax calculations results screen (Figure 4), and "Erase All Data" which erases all the data on the input screen and thereby prepares the worksheet for a new telephone/account number.

Under the "Settings" menu, there are options for "Calculate Taxes First," which causes the mechanized tax worksheet to jump directly to the tax calculations results screen (Figure 4) instead of first showing the data that is displayed in the tax worksheet input screen of Figure 2, "Auto-Fill Services," which allow input of data with all fields being duplicated except, preferably, for the rate field, and "Remarks Preferred," which allows input in the remarks column. Finally, the "About" menu item preferably provides details regarding the current version of the mechanized tax worksheet of the present invention.

Area 220 includes a box for the account number which corresponds to the account telephone number. There are also boxes for tax exemption indicators (tax codes) for the account entered, whether the account is a residence or a business and when the next bill period date of the account is.

Boxes in information area 230 include highlighted symbols that indicate whether (i) the screen is permitting remarks to be input, (ii) data is being automatically filled (except preferably the rate field), (iii) whether the worksheet is

in edit mode (in the edit mode a user can edit or modify the data in any field), and
(iv) whether to calculate taxes using historical tax rates instead of current tax rates
(RCATS – refund calculation and tracking system), e.g., if a refund is due for a
charge for which the tax rate has now changed.

5 Function buttons 240 include a calculate and a review button. If calculate is
depressed, the summable fields (e.g., rate field) are added together and if the review
button is depressed, the screen changes to the tax calculations results screen of
Figure 4. Function box 250 includes an "erase all" button which erases all the
current data and presents a refreshed mechanized tax worksheet input screen and
an "exit MTW" button which closes out the program entirely. Preferably, when the
"exit MTW" button is pressed a dialogue box (not shown) appears which asks the
user whether he would like to save the worksheet. If yes, the data in the worksheet
is saved in a conventional manner.

15 The main portion of the mechanized tax worksheet input screen (Figure 2)
includes several columns with headings of "type," "entity," "Tar/Geo," "remarks,"
"from, thru," "A/C" and "rate." The fields in the type column may, for example, be
one of the following:

- B Bill total
- C Optional calling services
- D DA charges
- I IDB charges – regulated

IU	IDB charges – unregulated
L	Local usage
M	RCATS
N	Non-fractional charges & credits
P	Past balance due
R	Recurring charges & credits
T	Tolls

The entity column represents, in this case, the telephone company that is providing service to the customer. Thus, the entity is the billing entity or, in the case of telephone companies, the carrier. The Tar/Geo column indicates the Tar code or Geographic code that represents the city and county of the account, as is well known in the art. The remarks column preferably includes a USOC (universal service operations code) or some other brief description of the charge. In Figure 1, the following USOCs are used:

1FRL	Residential line
LNPCX	Local number portability
BCR	Secondary CO feature – recurring
BRD	Secondary CO feature – recurring
NXMCR	Secondary CO feature – recurring

AH8KC	Kentucky TRS hearing impaired surcharge pass on
SEQ1X	Inside wire service plan
TDG	Trouble determination plan
8SCRB	State universal service fund
9LM	Interstate CALC (end user common line charge)
VR3CL	Residence line
VS	Secondary CO feature - recurring

The “from” and “thru” columns are used to bound the dates over which certain other charges and credits (OC&Cs) are fractionalized.

The next column in the mechanized tax worksheet is entitled A/C, or account code, for the particular line item. The account code preferably is an internal account code used by the billing entity. Finally, the rate column lists the amount of charge or credit for the particular line item.

Figures 3 through 5 illustrate exemplary reports that are output by the mechanized tax worksheet of the present invention. Specifically, Figure 3 is a services report which provides details of what has been entered into the system for a particular account. In this case, Figure 3 has data that corresponds identically to Figure 2.

Figure 4 illustrates a breakdown of the tax calculations results implemented by the mechanized tax worksheet of the present invention. Specifically, as can be seen in Figure 4, the tax is broken down by federal, state, county, city and franchise. These taxes are calculated using taxing information provided by Tax TAR database 110 or tax tables stored within MTW Database 108. Near the bottom of the tax results report of Figure 4 are regulated and unregulated totals as well as a total billed line. Figures 5A and 5B show a summary report that is also generated by the mechanized tax worksheet of the present invention. This summary report preferably is used to compare the several independently calculated charges with the charges appearing on the bill calculated by mainframe computer 102, i.e., hold bill 185.

Specifically, in one preferred implementation, as shown in Figure 1, mainframe computer 102 is in communication with printer 180. This printer preferably prints several hold bills 185 that correspond to accounts that have been downloaded via the prebill and demand print data 140/145. Then, after the download process and tax calculation that is completed by the mechanized tax worksheet of the present invention, the bill verifier (user) compares the charges on the hold bills to the charges that have been independently calculated by the present invention. If any inconsistency is apparent, then the bill verifier preferably then determines the source of the error, which may be algorithms, etc., run on mainframe computer 102 or calculation performed by the mechanized tax worksheet of the present invention. Once the bill verifier/user determines that all

inconsistencies have been resolved, then the hold bills may be "released" thereby permitting release of the complete batch of bills that were held for purposes of verification.

In another preferred embodiment of the present invention, the printed hold bills are scanned by scanner 190 and the digital images thereof are made available to network 120. Then, these digital images are preferably displayed in split screen format on PC 125 along with, for example, the summary report of Figures 5A and 5B. Thus, in this second preferred embodiment, the bill verifier need not handle any papers but instead, can accomplish his function using only a screen of PC 125. Of course, two screens may be used, either on the same PC 125, or using two separate PCs.

In still another preferred embodiment of the present invention, optical character recognition (OCR) software 195 is provided in connection with the scanner whereby the data on the hold bill can be stored electronically. Then, the "compare" function that the bill verifier himself performed in the previous embodiment, can, instead, be accomplished directly by the present invention by performing electronic data comparisons.

In another embodiment of the present invention, instead of printing hold bills 185 via printer 180, the data files in mainframe computer 102 that ultimately are used to generate the printed hold bills 185 are separately downloaded to local server 130 and made available to network 120. Then, instead of comparing a printed

version of the hold bill to the independently generated verification bill, an electronic data comparison can be performed between the two data files, namely, the data files from mainframe computer 102 and data files that store the information for, for example, summary report of Figures 5A and 5B. In this embodiment, the entire process is fully automated whereby a printing step and a manual verification step are eliminated.

A useful by-product of the present invention is that users of the present invention can easily be trained to learn the necessary tax information to properly work as a bill verifier. Specifically, the present invention, since it is implemented on a PC network can easily store individual worksheets that have been calculated. Accordingly, if a relatively new user of the present invention has a question regarding a possible error generated by the mainframe computer, the user can save the worksheet and that worksheet can then be brought up on another computer, and even at a later date, for discussion and education purposes.

Further, the present invention can be used to manually enter data to verify taxing or fractionalization outside of the described automated download process. This is a very useful tool for quick checking of tax issues.

The foregoing disclosure of embodiments of the present invention and specific examples illustrating the present invention has been presented for purposes of illustration and description. It is not intended to be exhaustive or to limit the invention to the precise forms disclosed. Many variations and modifications of the

embodiments described herein will be obvious to one of ordinary skill in the art in light of the above disclosure. Thus, the scope of the invention is to be defined only by the claims appended hereto, and by their equivalents.

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WHAT IS CLAIMED IS:

1. A method of verifying charges on a customer bill, comprising the steps of:
downloading, from a mainframe computer, to a local server billing data
associated with a customer account;
5 populating a database with a portion of the billing data;
performing pre-calculation functions on another portion of the billing data
and populating the database with results of the pre-calculation functions;
displaying predetermined categories of information stored in the database;
calculating the taxes for each of several charges in the billing data and
10 storing tax results in the database; and
comparing the tax results with tax information on the customer bill.

2. The method of claim 1, wherein the customer bill is generated by a
corporate entity different from the corporate entity having control of the database.

3. The method of claim 1, wherein the pre-calculation functions include
summing toll telephone charges.

4. The method of claim 1, wherein the predetermined categories describe
20 elements of individual charges.

5. The method of claim 1, wherein the displaying step is performed on a computer.

6. The method of claim 5, wherein the computer is in communication with an
5 electronic data network.

7. The method of claim 1, further comprising loading the database with tax rate information.

8. The method of claim 1, further comprising electronically saving the tax
10 results.

9. The method of claim 8, further comprising utilizing the tax results for resolving questions.

10. The method of claim 1, wherein the local server and database are
integrated in a single machine.

11. A method of verifying taxes on account charges on a customer hold bill,
20 comprising the steps of:

maintaining a tax rate information database that is in communication with a data network;

maintaining a database that includes account charges;
automatically applying the tax rate information to the account charges and
storing a result;
displaying the result on a computer that is in communication with the data
5 network; and
comparing the result with the taxes appearing on the hold bill.

12. The method of claim 11, wherein the step of maintaining the database
includes downloading account information from a mainframe computer.

13. The method of claim 12, wherein the account information includes prebill
and demand print data.

14. The method of claim 12, further comprising supplying the tax rate
5 information to the mainframe computer.

15. The method of claim 11, further comprising scanning the hold bill and
storing an image thereof.

20 16. The method of claim 15, further comprising applying optical character
recognition software to the image and storing a file representative of the characters
obtained.

17. The method of claim 16, further comprising electronically comparing the file with the result.

5 18. The method of claim 11, wherein the database is in communication with a local server.

19. The method of claim 11, further comprising using the result to identify errors on the hold bill.

20. A method of independently verifying the accuracy of tax charges on a bill generated for a customer account, comprising the steps of:

downloading data, including customer charges, that is the basis for bill generation, to a local server;

automatically determining which charges are subject to taxation;

automatically calculating the tax for the charges subject to taxation and storing tax results;

displaying the tax results; and

comparing the tax results to the tax charges on the bill,

20 wherein the bill generated for a customer account is generated on a mainframe computer and the local server is operable separately from the mainframe computer.

21. A system for verifying charges on a customer bill, comprising:

a local server in communication with a mainframe computer and operable to receive from the mainframe computer billing data associated with a customer
5 account;

a database for storing the billing data;

an application performing calculations, including tax calculations, on a portion of the billing data and storing a result in the database; and

a computer connected to the database via an electronic data network, the computer displaying a tax worksheet,

wherein the tax worksheet is automatically filled in upon entry of an account number, tax calculations are automatically performed and the result is compared to the tax information on the customer bill that was generated by the mainframe computer.

22. The system of claim 21, wherein the customer bill is generated by a corporate entity different from the corporate entity having control of the database.

23. The system of claim 21, wherein the means for performing calculations
20 include means for summing toll telephone charges.

24. The system of claim 21, wherein the electronic data network includes the Internet.

25. The system of claim 21, further comprising means for loading the
5 database with tax rate information.

26. The system of claim 21, further comprising means for electronically saving the result.

27. The method of claim 21, wherein the local server and database are
integrated in a single machine.

28. A system for verifying taxes on account charges on a customer hold bill, comprising:

5 a tax rate information database that is in communication with a data network;

a database that stores the account charges;

a means for automatically applying the tax rate information to the account charges and storing a result;

20 a means for displaying the result on a computer that is in communication with the data network; and

a means for comparing the result with the taxes appearing on the hold bill.

29. The system of claim 28, wherein the account charges are downloaded from a mainframe computer.

5 30. The system of claim 28, wherein the account charges include prebill and demand print charges.

31. The system of 29, further comprising means for supplying the tax rate information to the mainframe computer.

32. The system of claim 28, further comprising a scanner for scanning the hold bill and storing an image thereof.

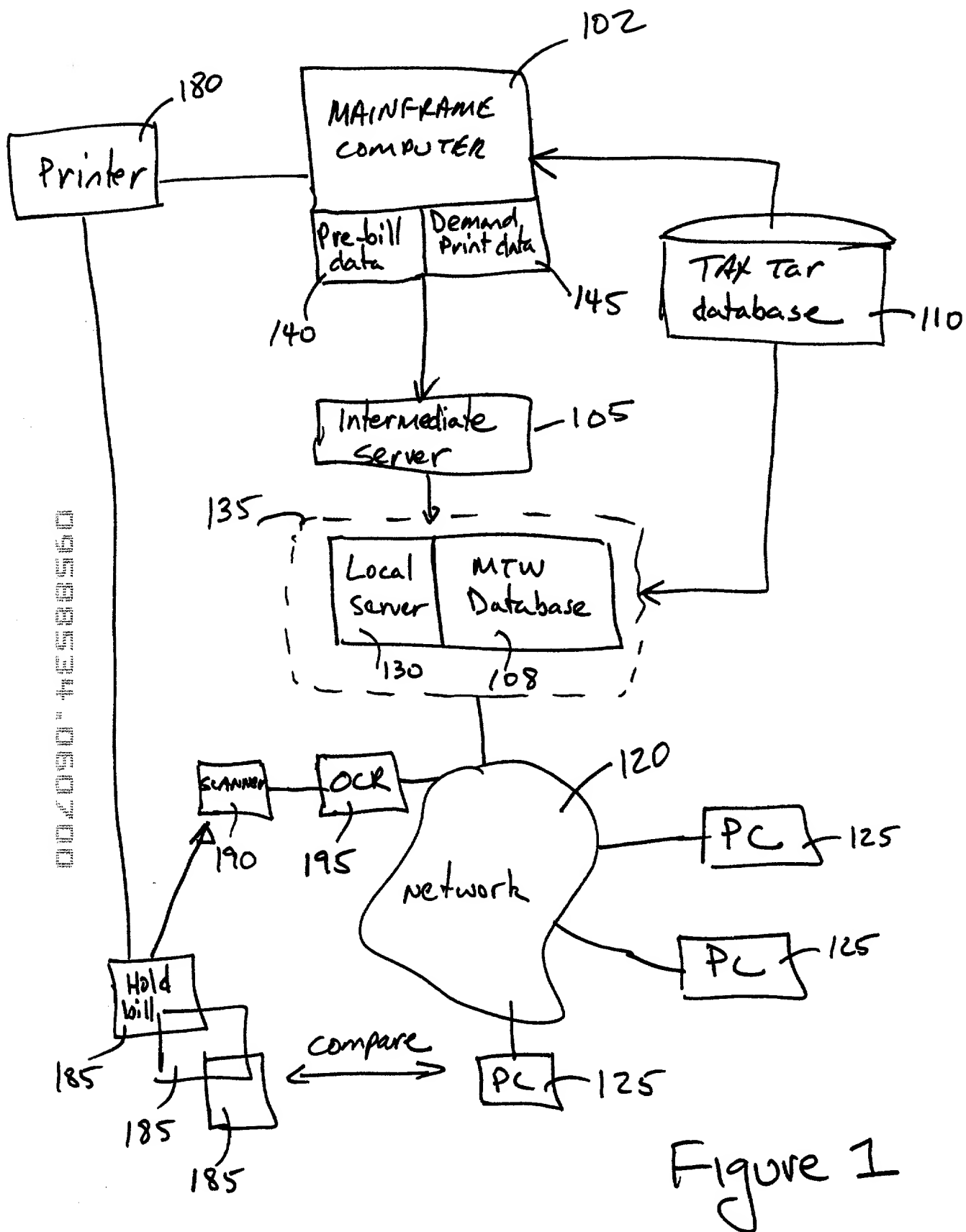
33. The system of claim 32, further comprising means for applying optical character recognition software to the image and storing a file representative thereof.

34. The system of 33, further comprising means for electronically comparing the file with the result.

ABSTRACT

A system and method for verifying charges on a customer bill includes a computers for downloading, from a mainframe computer, to a local server billing data associated with a customer account, populating a database with a portion of the billing data, performing pre-calculation functions on another portion of the billing data and populating the database with results of the pre-calculation functions, displaying predetermined categories of information stored in the database, calculating the taxes for each of several charges in the billing data and storing tax results in the database, and comparing the tax results with tax information on the customer bill.

Document # 935193 v.1



Mechanized Tax Worksheet Input (Dale Johnson)

MTW Operations EATS Settings About

Account Number: (270) 683-140
 Tax Codes: NNNN
 Residence/Business: Residence
 Bill Date: 2/7/00

Remarks
 Auto-Fill
 Edit Mode
 EATS

Calculate
 Review

Erase All
 Exit MTW

	Type	Entity	Tax/Geo	Remark	From	Thru	A/C	Rate
1	R	A00100	113830	1FRCL			110	13.69
2	R	A00100	113830	TTR			DJ3	0.00
3	R	A00100	113830	BCR			DJ3	0.00
4	R	A00100	113830	BRD			DJ3	0.00
5	R	A00100	113830	LNPCX			LNB	0.35
6	R	A00100	113830	NXMCR			DJ3	7.50
7	R	A00100	113830	AH8KC			KY1	0.07
8	RU	A00100	113830	SEQ1X			EQ0	3.95
9	R	A00100	113830	TDS			DC3	0.25
10	R	A00100	113830	8SCRB			DD5	0.03
11	R	A00100	113830	9LM			EX0	3.50
12	F	A00100	113830	VR3CL	1/27/00	2/7/00	110	-17.00
13	F	A00100	113830	VSB	1/27/00	2/7/00	DJ3	-16.50
14	F	A00100	113830	1FRCL	1/27/00	2/7/00	110	13.69
15	F	A00100	113830	NXMCR	1/27/00	2/7/00	DJ3	7.50
16	F	A00100	113830	8SCRB	12/31/99	2/7/00	DD5	-0.02
17	RU	A00100	113830	E911			141	0.40
18	D	A00100	113830	DA			R30	0.85
19	T	A00100	113830	Toll			110	11.84
20	T	A00100	113830	Bulk			110	-1.18

Waiting for your next move.

FIGURE 2

Mechanized Tax Worksheet: Kentucky

Dale Johnson (ygqmrbf)

Account Number: (270) 683-3140

Bill Date: 02/07/00

Tax Codes: NNNN

Carrier ID	Group	TAR/GEO	Type	From	Thru	A/C	Tax	Status	Rate
A00100	Monthly	113 830	R			110		TTNNTN	13.69
			R			DJ3		TTNNTN	0.00
			R			DJ3		TTNNTN	0.00
			R			DJ3		TTNNTN	0.00
			R			LNB		TNNNNN	0.35
			R			DJ3		TTNNTN	7.50
			R			KY1		NNNNNN	0.07
			RU			EQ0		NNNNNN	3.95
			R			DC3		NTNNNN	0.25
			R			DD5		NNNNNN	0.03
			R			EX0		TNNNNN	3.50
			RU			T41		NNNNNN	0.40
A00100	OC&C	113 830	F	01/27/00	02/07/00	110		TTNNTN	-17.00
			F	01/27/00	02/07/00	DJ3		TTNNTN	-16.50
			F	01/27/00	02/07/00	110		TTNNTN	13.69
			F	01/27/00	02/07/00	DJ3		TTNNTN	7.50
			F	12/31/99	02/07/00	DD5		NNNNNN	-0.02
			D			R30		TTNNTN	0.85
A00100	Tolls	113 830	T			T10		TTNNTN	11.84
			T			T10		TTNNTN	-1.18
C0022B	IDB	0	I					NNNNNN	10.95

FIGURE 3

Tax Calculation Results: Kentucky

Dale Johnson (ygqmrbf)

Account Number: (270) 683-140

Bill Date: 02/07/00

TAR/Geo	Type	From	Thru	A/C	Status	Rate	Amt	Tax	Fed	State	County	City	Fran	GR
113830	R			110	TTNNTN	13.69	13.69		T	T			T	
	R			LNB	TNNNNN	0.35	.35		T					
	R			DJ3	TTNNTN	7.50	7.50		T	T			T	
	R			KY1	NNNNNN	0.07	.07							
	R			DC3	NTNNNN	0.25	.25			T				
	R			DD5	NNNNNN	0.03	.03							
	R			EX0	TNNNNN	3.50	3.50		T					
Reg		A00100	Monthly				25.39	2.692	.770	1.286	.000	.000	.636	
113830	RU			EQ0	NNNNNN	3.95	3.95							
	RU			T41	NNNNNN	0.40	.40							
Unreg		A00100	Monthly				4.35	0.000	.000	.000	.000	.000	.000	.00
113830	F	1/27/00	2/6/00	110	TTNNTN	-17.00	-5.67		T	T			T	
	F	1/27/00	2/6/00	DJ3	TTNNTN	-16.50	-5.50		T	T			T	
	F	1/27/00	2/6/00	110	TTNNTN	13.69	4.56		T	T			T	
	F	1/27/00	2/6/00	DJ3	TTNNTN	7.50	2.50		T	T			T	
	F	12/31/99	2/6/00	DD5	NNNNNN	-0.02	-.02							
	D			R30	TTNNTN	0.85	.85		T	T			T	
Reg		A00100	OC&C				-3.28	-0.393	-.101	-1.195	.000	.000	-.098	.00
113830	T			T10	TTNNTN	11.84	11.84		T	T			T	
	T			T10	TTNNTN	-1.18	-1.18		T	T			T	
Reg		A00100	Tolls				10.66	1.289	.329	.640	.000	.000	.320	.00
		A00100	Reg				32.77	3.59	.999	1.731	.000	.000	.858	.00
		A00100	Unreg				4.35	0.00	.000	.000	.000	.000	.000	.00

TOTAL Reg								3.59	.999	1.731	.000	.000	.858	.00
TOTAL Unreg								0.00	.000	.000	.000	.000	.000	.00
TOTAL Billed							37.12	3.59	1.00	1.73	.00	.00	.86	.00

FIGURE 4

Summary Sheet: Kentucky

Dale Johnson (ygqmrbf)

Account Number: (270) 683-1114 140

Bill Date: 2/7/00

	<u>A00100</u>	<u>C0022B</u>	<u>Total</u>
Past Due Amount	0.00	0.00	
REGULATED PAGES:			
Monthly Service Charges			
Total Monthly Services	25.39	0.00	
Local Usage Summary			
Total Local Usage Charges	0.00	0.00	
Other Charges and Credits			
Total OC&C	-3.28	0.00	
Itemized Calls			
Total Itemized Calls	10.66	0.00	
Regulated Taxes			
* Federal	1.00	0.00	
* State/Local	1.73	0.00	
* School	0.86	0.00	
Total Regulated Taxes	3.59	0.00	
Other States' Taxes	0.00	0.00	
Pre-Taxed Tolls (IDB)	0.00	10.95	
Total Regulated Charges	36.36	10.95	

Figure 5A

Bill Summary Sheet: Kentucky

Dale Johnson (ygqmrbf)

Account Number: (270) 683-140

Bill Date: 2/7/00

	<u>A00100</u>	<u>C0022B</u>	<u>Total</u>
ONREGULATED PAGES:			
Monthly Service Charges			
Total Monthly Services	4.35	0.00	
Local Usage Summary			
Total Local Usage Charges	0.00	0.00	
Other Charges and Credits			
Total OC&C	0.00	0.00	
Itemized Calls			
Total Itemized Calls	0.00	0.00	
Nonregulated Taxes			
Federal	0.00	0.00	
State/Local	0.00	0.00	
School	0.00	0.00	
Total Nonregulated Taxes	0.00	0.00	
Pre-Taxed Tolls (IDB)	0.00	0.00	
Total Nonregulated Charges	4.35	0.00	
Total Bill	40.71	10.95	51.66
Total On Bill	0.00	0.00	
Figure 5B			

Docket No.

BS99-090

Declaration and Power of Attorney For Patent Application

English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled
MECHANIZED TAX WORK SHEET

the specification of which

(check one)

☒ is attached hereto.

☐ was filed on _____ as United States Application No. or PCT International Application Number _____ and was amended on _____

(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Not Claimed

(Number)

(Country)

(Day/Month/Year Filed)

☐

(Number)

(Country)

(Day/Month/Year Filed)

☐

(Number)

(Country)

(Day/Month/Year Filed)

☐

I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional application(s) listed below:

(Application Serial No.)

(Filing Date)

(Application Serial No.)

(Filing Date)

(Application Serial No.)

(Filing Date)

I hereby claim the benefit under 35 U. S. C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, C. F. R., Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

(Application Serial No.)

(Filing Date)

(Status)
(patented, pending, abandoned)

(Application Serial No.)

(Filing Date)

(Status)
(patented, pending, abandoned)

(Application Serial No.)

(Filing Date)

(Status)
(patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. *(list name and registration number)*

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